CHAUVIN® ARNOUX

CHAUVIN ARNOUX GROUP

C.A 5277
C.A 5275
C.A 5273
C.A 5271

Category IV for safety, versatility for use in the field

**TRMS
AC, DC
and AC+DC
Digital
Multimeters**

52.71 V — C.A 5271

52.73 V — C.A 5273

52.75 V — C.A 5275

52.77 V — C.A 5277

IP 54

3-year warranty

Eco Conception

- ■ **Double 6,000-count backlit display with dual-mode remanent bargraph**
- ■ **V_{LowZ} low-impedance voltage measurement with low-pass filter (electronic power supply)**
- ■ **Resolution from 10 µV and 1 µA**
- ■ **Ionization current**
- ■ **Quick response (5 measurements/s) and high crest factor**
- ■ **Resistance, continuity, frequency, temperature, capacitance, etc.**
- ■ **Min / Max / Peak functions and relative or differential measurements**

The TRMS digital multimeter,
a crucial tool for electricians

Rugged and reliable, this instrument is ideal for tertiary, industrial, electrical or electrotechnical maintenance applications. It is equipped with all the classic functions offered by a general-purpose multimeter and also includes advanced functions to facilitate measurements in the field.

The 4 multimeters in the C.A 5270 Series can be used in various sectors:

- general electrical applications
- electromechanics
- heating and air-conditioning
- industry & tertiary sector
- automotive sector
- buildings and all installations powered by an electrical network

Exceptionally easy to read!

The large double LCD display with blue backlighting also offers a 61+2-segment full-scale bargraph. The Central Zero function allows you to view variations immediately. This type of bargraph is particularly practical for making adjustments.

	C.A 5271 Simple and automatic for effective operation	C.A 5273 Simple and complete for electrical maintenance on AC and DC installations and light machinery
Automatic AC/DC detection	✔	✔
V_{LowZ} voltage measurement	✔	✔
Temperature measurement		✔
Capacitance measurement from 1 pF to 60 mF		✔
Double backlit display with bargraph and "Central Zero" function		✔
Min / Max function		✔

	C.A 5275 Versatile, all signal types, from process signals to three-phase networks up to 1,000 V	C.A 5277 A complete instrument for testing, maintenance and verification
TRMS AC + DC	✔	✔
Resistance up to 60 MΩ	✔	✔
60 mV$_{AC/DC/AC+DC}$ calibre	✔	✔
µA calibre for measuring ionization current	✔	✔
DC voltage measurement up to 1,000 V	✔	✔
Differential and relative measurements		✔
Quick response (5 measurements/s)	✔	✔
Peak function		✔

Ideal for work in the field and in the lab, this new range of multimeters is particularly versatile in terms of use: electrical cabinets, laboratories, metrology, etc.

Accurate measurements, useful functions and a range of great features!

12-bit TRMS fast acquisition & 5 measurements per second

The signals measured may be distorted or disturbed. This type of acquisition ensures top-quality results whatever their form or nature.

Measurement of the ionization current

Boiler maintenance and gas-burner combustion testing require measurement and adjustment of the ionization current. The presence of this current of a few µA DC, flowing through the flame between the ionization probe and the earth, controls the gas supply. If there is a combustion problem, the absence of any flame means there is no current so it triggers the fail-safe to shut down the installation.

V_{LowZ} low-impedance voltage measurement

Proximity to live circuits or conductors may cause a capacitive effect leading to the presence of an induced voltage on an open, powered-down circuit. The high impedance of a classic voltmeter which does not eliminate these spurious charges will lead to erroneous detection of a voltage. The low-impedance setting on the multimeters in the C.A 5270 Series, specially designed for electricians' needs, will give a true result: there is no voltage in the circuit.

TRMS MIN / MAX

The MIN and MAX measurements are true root-mean-square (TRMS) values calculated over a 100 ms period. They represent the variation range of the electrical quantity measured. It is these values which are used to size an installation, the diameter of a power cable or the rating of a protective device (fuse, disconnector, etc.).

1 ms Peak±

The Peak+ and Peak- values, calculated over a period of 1 ms, characterize the distortion of the measured quantity's waveform. In the event of a sinusoidal power source, high values for these two quantities are indicative of changes in the installation's behaviour and, in certain cases, malfunctions. If the ratio between the RMS value and the Peak value is other than 1.4, it may indicate the presence of harmonic disturbances.

Relative and differential measurements

Comparison with a known reference standard or with a quantity of reference is often a good way to make a quick assessment and analysis. The ΔREL differential measurement function can be used to measure the difference in relation to the reference value. The ΔREL/R % relative measurement function places the quantity in its context.
Expressed as a proportion of the reference value, the same value may thus appear negligible or highly significant.
These functions can be applied simultaneously to all the types of measurements and can also be coupled with the Min, Max, Peak- and Peak+ analysis functions.

Extended HOLD

Unlike the usual HOLD function which simply freezes the value displayed, the HOLD function on the C.A 5270 Series multimeters stores all the parameters of a measurement. In this way, depending on the measurements and functions activated, it is possible to view the Min, Max and Peak values as they stand, or in differential or relative terms.

Greater comfort thanks to the Multifix multi-position mounting accessory!
Fixed to your belt, to a door or in a cabinet, this little accessory clips onto the back of your multimeter and allows you to work hands-free.

TECHNICAL SPECIFICATIONS

		C.A 5271	C.A 5273	C.A 5275	C.A 5277
Display		6,000 counts	2 x 6,000 counts with backlighting		
Bargraph		61+2 elements	61+2 elements, dual mode (full scale/ central zero)		
Acquisition		TRMS AC /DC		TRMS AC / DC / AC+DC	
Measurement range		5 measurements / second			
Autorange / Deactivatable		Yes / No		Yes / Yes	
Automatic AC/DC detection		Yes		No	
V DC	Ranges	600 mV / 6 V / 60 V / 600 V / 1,000 V		60 mV / 600 mV / 6 V / 60 V / 600 V / 1,000 V	
	Typical accuracy	0.2 % + 2 cts		0.09 % + 2 cts	
	Resolution	0.1 mV to 1 V		0.01 mV to 1 V	
V AC	Ranges	600 mV / 6 V / 60 V / 600 V / 1,000 V		60 mV / 600 mV / 6 V / 60 V / 600 V / 1,000 V	
	Resolution	0.1 mV to 1 V		0.01 mV to 1 V	
	Bandwidth	40 Hz to 3 kHz		40 Hz to 10 kHz	
VLowZ AC (low impedance + low-pass filter)	Ranges	600 mV / 6 V / 60 V / 600 V / 1000 V			
	Resolution	0.1 mV to 1 V			
V AC+DC	Ranges			60 mV / 600 mV / 6 V / 60 V / 600 V / 1,000 V	
	Resolution			0.01 mV to 1 V	
A DC	Ranges	6 A / 10 A (20 A / 30 s)		6000 µA / 60mA / 600 mA 6 A / 10 A (20 A / 30 s)	
	Resolution	0.001A to 0.01 A		1 µA to 0,01 A	
				Ionization current: 0.2 µA to 20.0 µA	
A AC	Ranges	6 A / 10 A		6000 µA / 60 mA / 600 mA 6 A / 10 A (20 A / 30 s)	
	Resolution	0.001 A to 0.01 A		1 µA to 0.01 A	
A AC+DC	Ranges			6000 µA / 60 mA / 600 mA 6 A / 10 A (20 A / 30 s)	
	Resolution			1 µA to 0.01 A	
Ω	Ranges	600 Ω / 6 000 Ω / 60 kΩ / 600 kΩ / 6 MΩ / 60 MΩ			
	Resolution	0.1 Ω to 0.1 MΩ			
Audible continuity		Yes	Yes	Yes	Yes
Test diode		Yes	Yes	Yes	Yes
Hz	Ranges	600 Hz / 6 kHz / 50 kHz			
	Resolution	0.1 Hz to 10 Hz			
⊣⊢	Ranges	6 nF / 60 nF / 600 nF / 6 µF / 60 µF / 600 µF / 6 mF / 60 mF			
	Resolution	0.001 nF (1pF) to 10 µF			
T°	Measurement range	-59.6 °C to +1,200 °C -4 °F to 2,192 °F		-59.6 °C to +1,200 °C -4 °F to +2,192 °F	
	Resolution	0.1 ° to 1 °		0.1 ° to 1 °	
Hold		Yes	Yes	Yes	Yes
Min / MAX (100 ms)		No	Yes	Yes	Yes
Peak+ / Peak- (1 ms)		No	No	No	Yes
Differential (ΔX)/RELative (ΔX/X%) measurement		No	No	No	Yes
Automatic power-off		Yes (deactivatable)			
Safety		CAT IV 600 V and CAT III 1000 V			
Ingress protection rating		IP54			
Power supply		1 x 9 V			
Dimensions / Weight		90 x 190 x 45 / 400 g			

TO ORDER:

C.A 5271 TRMS AC/DC multimeter P01196771
C.A 5273 TRMS AC/DC multimeter... P01196773
C.A 5275 TRMS AC+DC multimeter P01196775
C.A 5277 TRMS AC+DC multimeter P01196777

STATE AT DELIVERY:

	C.A 5271	C.A 5273	C.A 5275	C.A 5277
1 + 2 + 3 + 4	1	1	1	1
5		1		1
6 + 7			1	1

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